

Introduction to Industrial AM: Material Extrusion and Laser Powder Bed Fusion

Agenda

Points of Contact

DRIVE AM

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Overview

Day 1

9:00 AM	Trainer and Student introductions
9:30 AM	Additive Manufacturing Technology Overview Part 1: Introduction to AM
10:45 AM	Additive Manufacturing Technology Overview Part 2: AM Process Categories
12:00 PM	Lunch
1:00 PM	AM Design: Common Design Features
2:00 PM	Material and Process Selection
3:00 PM	Reverse Engineering and 3D Scanning

Day 2

9:00 AM	Introduction to Material Extrusion
10:00 AM	Tour of the Stratasys Fortus 900mc
11:00 AM	Design for Material Extrusion AM
12:00 PM	Lunch
1:00 PM	Materials Extrusion: Process Parameters
2:00 PM	Material Extrusion: Post Processing
3:00 PM	Sample Application for Material Extrusion
3:30 PM	Sources of Errors in Material Extrusion

Day 3

9:00 AM	Introduction to Laser Powder Bed Fusion
10:00 AM	Design for LPBF and Digital File Prep
11:00 AM	Tour of EOS M290
12:00 PM	Lunch
1:00 PM	Materials, Feedstock and Machine Quality
2:00 PM	Process Monitoring and Part Inspection
3:00 PM	Post Processing, Fine Tuning and Troubleshooting

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Course Schedule

	General AM Day	Material Extrusion Day	LPBF Day
Time (EST)	Day 1	Day 2	Day 3
9:00	Trainer and Student Introductions	Intro to Material Extrusion	Intro to Laser Powder Bed Fusion
9:30			
10:00	Additive Manufacturing Technology Overview Part 1: Introduction to AM	Tour of the Stratasys Fortus 900mc	Design for LPBF and Digital File Prep
11:00	AM process Categories	Design for Material Extrusion AM	Tour of EOS M290
12:00	Lunch	Lunch	Lunch
1:00	AM Design: Common Design Features	Material Extrusion: Process Parameters	Materials, Feedstock and Machine Quality Control
2:00	Material and Process Selection	Material Extrusion: Post Processing	Process Monitoring and Part Inspection
3:00	Reverse Engineering and 3D Scanning	Sample application for Material Extrusion	Post Processing, Fine Tuning and Troubleshooting
		Sources of Errors in Material Extrusion	
4:00	End of lecture	End of lecture	End of lecture